Remarks

In **Section 1**, on page 2, the Final Office Action acknowledges Applicant's claim for the benefit of an earlier filing date. Applicant claimed an earlier filing date of at least as early as 21 May 1998 in a First Amendment, dated 2 August 2004, and reiterated that earlier filing date in a Second Amendment, dated 1 February 2005.

In response, this Final Office Action alleges on page 5 that Applicant has not provided evidence that the claimed subject matter as a whole was taught in the 09/084,156 application (i.e., U.S. Patent No. 6,308,162). Consequently, the Final Office Action mistakenly alleges that the earliest effective filing date that the above-identified application is entitled to is 10 September 2001.

In order to provide clear and unambiguous evidence that the claimed subject matter as a whole was taught in U.S. Patent No. 6,308,162, claims 1 and 3-7 (as amended herein) are reiterated below along with notations indicating where their support may be found in the '162 patent. U.S. Patent 6,308,162, filed 21 May 1998, provides strong evidence that the claimed subject matter as a whole, as recited in every claim presently pending in the present application, was taught as of the 21 May 1998 filing date. In addition, a clean copy of the '162 patent is provided in an Appendix A of this Amendment After Final Action for the Examiner's convenience.

Claim 1:

1. (Currently Amended) In an enterprise planning model, a computer program residing in memory and executable by a processor, said computer program enabling visualization of an effect of a strategic constraint on a primary goal of an enterprise, said computer program instructing said processor to perform operations comprising:

selecting said primary goal of said enterprise planning model, said primary goal being represented by a primary objective function, said primary objective function depending upon a set of operational variables; **(col. 5, lines 8-12, and FIG. 4A, Step 1101)**

representing said strategic constraint by a constraint function, said constraint function depending upon a subset of said operational variables; **(col. 5, lines 30-38, and FIG. 4A, Step 1102, and FIG. 4B)**

constructing an effective objective function by combining said primary objective function and said constraint function; **(col. 7, lines 29-38, and FIG. 5A, Step 1203)**

optimizing said effective objective function over a range of ~~target values~~ weighting factors for said constraint function to obtain operational decisions for said operational variables, said optimizing operation optimizing said effective objective function for each of said weighting factors in said range; **(col. 7, lines 29-38, and col. 8, lines 1-19, and FIG. 5A, Step 1204)**

determining, from said optimizing operation, a plurality of outcomes of said primary objective function in response to said range of ~~target values~~ weighting factors; and **(col. 8, lines 21-28 and lines 33-41, and FIG. 5A, Step 1205)**

presenting a graphical view of said plurality of outcomes of said primary objective function versus values of said constraint function corresponding to said ~~target values~~ weighting factors such that effects of said strategic constraint on said primary goal can be readily perceived by a user to manage said enterprise. **(col. 8, lines 41-43, and FIG. 11)**

Claim 3:

3. (Currently Amended) A computer program as claimed in claim [[2]] 1 wherein said computer program instructs said processor to perform further operations comprising:

selecting a set of [[said]] scenarios for said strategic constraint; and
(col. 9, lines 24-27)
for each of said set of said scenarios, providing a set of said operational decisions for said operational variables that optimize said primary goal while concurrently satisfying said strategic constraint.
(Abstract, col. 4, lines 43-49, and col. 9, line 65, through col. 10, line 4)

Claim 4:

4. (Previously Presented) A computer program as claimed in claim 3 wherein said computer program instructs said processor to perform further operations comprising:
enabling said user to target one of said scenarios from said set of said scenarios to be realized within said enterprise; and
(col. 7, lines 4-5)
providing said set of said operational decisions associated with said one of said scenarios to said user.
(col. 7, lines 5-7)

Claim 5:

5. (Currently Amended) A computer program as claimed in claim 1 wherein said computer program instructs said processor to perform a further operation of said optimizing operation comprising:
outputting said operational decisions for said set of operational variables that optimize said objective function while concurrently satisfying [[said]] target values for said constraint function.
(col. 2, lines 1-3, lines 24-26, and lines 37-41)

Claim 6:

6. (Currently Amended) A computer program as claimed in claim 1 wherein said computer program instructs said processor to perform a further operation of said optimizing operation comprising selecting [[a]] said

range of weighting factors for said constraint function, said weighting factors adjusting an effect that said constraint function has on said objective function~~, and said optimizing operation optimizes said effective objective function for each of said weighting factors in said range~~.
(col. 8, lines 1-19)

Claim 7:

7. (Previously Presented) A computer program as claimed in 1 wherein:
said primary goal is limited by physical constraints of said enterprise planning model; and
(col. 4, lines 4-7)
said strategic constraint is non-limited by said physical constraints of said enterprise planning model.
(col. 6, lines 56-58)

As set forth above, the subject matter of the claims of the above-identified Application, amended herein, was also presented in the parent case (U.S. Pat. No. 6,308,162). Accordingly, Applicant believes that the invention of claims 1 and 3-7 is entitled to an effective filing date of at least as early as 21 May 1998.

For the Drawings:

Applicant acknowledges approval of the proposed drawing correction filed 4 August 2004, as set forth in **Section 2** of this Final Office Action.

For the Specification:

In **Section 3**, this Final Office Action objects to the specification because the Applicant is to update the continuing data on page 1 with the current status of each of the referenced applications.

Paragraph [0001] of the replacement specification was amended in connection with a First Amendment dated 2 August 2004 to indicate the current status of U.S. Patent Application Serial No. 09/951,334 as "still pending." To date, the status of Patent Application Serial No. 09/951,334 is unchanged. Accordingly, no modification to paragraph [0001] is being submitted herewith.

Section 4 of this Final Office Action indicates that Applicant's cooperation is requested in correcting any errors which Applicant may become aware of in the specification or drawings. Applicant is unaware of any errors in the specification subsequent to the submission of the replacement specification filed with the Amendment dated 2 August 2004. As such, no further corrections are being submitted herewith.

For the Claims:

Applicant originally submitted claims 1-8. A first Office Action, dated 12 May 2004, rejected claims 1-8. A First Amendment, dated 2 August 2004, canceled claim 8, amended claims 1, 3, 5, and 6, added claim 9, and retained claims 2, 4, and 7 as originally submitted. A second Office Action, dated 16 November 2004, rejected claims 1-7 and 9. A second Amendment, dated 1 February 2005, canceled claim 9 and amended claims 1-7. In response, this Final Office Action rejects claims 1-7. This Amendment After Final Rejection amends claims 1, 3, 5, and 6, retains claims 4 and 7, as previously presented, and cancels claim 2. Applicant respectfully requests reconsideration in view of the following remarks.

In **Section 5**, this Final Office Action examines claims 1-7 in light of the provisions of 35 U.S.C. §102. Subsections of **Section 5** specify the U.S.C. §102 rejections as follows:

Section 5.1: rejects claims 1-7 under 35 U.S.C. 102(b) as being clearly anticipated by *O'Brien*, International Publication Number WO 95/26007. More specifically, in **Section 5.1.1** the Office Action alleges that *O'Brien* largely teaches the invention of claims 1-5 and 7. In **Section 5.1.2**, this Final Office Action asserts with regard to claim 6, that since some business trips may be of more importance to the enterprise than other business trips, it would be inherent that the operational constraints of the enterprise in *O'Brien* would use some sort of weighting scheme in order to distinguish the priority of a particular business trip.

Independent claim 1 is being amended to include the weighting factor limitation previously recited in dependent claim 6. Accordingly, amended independent claim 1 includes the limitation of optimizing the effective objective function over a range of weighting factors for the constraint function to obtain operational decisions for the operational variables, the optimizing operation optimizing the effective objective function for each of the weighting factors in the range. Claim 1 was further amended to recite determining, from the optimizing operation, a plurality of outcomes of the primary objective function in response to the range of weighting factors, and presenting a graphical of the plurality of outcomes of the primary objective function versus values of the constraint function corresponding to the weighting factors. These features of claim 1 were taught in U.S. Patent No. 6,308,162 (Serial No. 09/084,156), as discussed above.

In addition to the modifications to claim 1, claim 2 is being canceled. Claim 3 is being amended to correspond with the modifications to claim 1 and in response to the cancellation of claim 2. Similarly, claims 5 and 6 are being amended to correspond with the modifications to independent claim 1.

With regard to the claimed weighting factors, formerly recited in claim 6, and now included in independent claim 1, the Final Office Action asserts that the utilization of some sort of weighting scheme for the operational constraints is inherent in *O'Brien* in order to distinguish the priority of a particular business trip. However, well-established patent practice dictates that for a characteristic to be inherent, it must be necessarily present. As stated in Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991):

> Anticipation by inherency requires that 1) the missing descriptive matter be "necessarily present" in the prior art reference and that 2) it would be so recognized by persons of ordinary skill in the art.

As further stated in Kropa v. Robie and Mahlman, 187 F.2d 150, 88 U.S.P.Q. 478 (C.C.P.A. 1951):

> Inherency does not mean that a thing might happen. The fact that a procedure might yield an abrasive article is not enough. To rely on the filing date of an earlier application, the desired result must inevitably happen for the doctrine to apply. (Emphasis supplied)

The Final Office Action asserts that some business trips may be of more importance to the enterprise than other business trips, and thus concludes that it would be inherent to use some sort of weighting scheme in order to distinguish the priority of a particular business trip. *O'Brien* is silent on any teaching of

prioritization of particular trips. Moreover, although it might in hindsight to a patent examiner be desirable to prioritize trips, it does not follow that a weighting scheme is necessarily present for prioritizing business trips despite Office Action allegations to the contrary. Rather, a weighting scheme might or might not optionally be present for prioritizing business trips. Since a weighting scheme might or might not optionally be present for prioritizing trips in the *O'Brien* system, it cannot be necessarily present. Consequently, the doctrine of inherency has been improperly applied.

O'Brien does teach of a weighted value 68 (page 11, line 27, through page 13, line 18, and FIG. 5). *O'Brien* teaches of determining a weighted value for each carrier serving each link that represents the actual cost of traveling the link using that carrier. The weighted value may take into consideration factors, such as, actual cost for a travel trip on a link, organization discount, upgrade worth, connection delay, and so forth. However, the *O'Brien* weighted value 68 is a single, separately computed value for <u>each carrier serving each link</u>. This weighted value 68 is subsequently applied to the objective function by multiplying the weighted value 68 by a variable 70 representing a particular cell, the cell representing the association between a particular travel link and a carrier serving that link (page 16, lines 3-28 and FIG. 5).

In contrast, amended independent claim 1 optimizes an effective objective function over <u>a range of weighting factors</u> for the constraint function. That is, an effective objective function is constructed by combining the primary objective function and the constraint function, the constraint function is variably weighted using the weighting factors (i.e., "over a range of weighting factors for said constraint function"), and

the effective objective function is optimized for each of the weighting factors in the range. Consequently, multiple weighting factors within a range are utilized, each of which affect the outcome of an optimization process that optimizes the effective objective function.

O'Brien fails to anticipate Applicant's invention of amended claim 1 because the claimed operation of optimizing the effective objective function over a range of weighting factors for the constraint function is not inherent in the *O'Brien* system. Nor is the *O'Brien* single weighting value for each carrier serving each link a teaching or suggestion of a range of weighting factors for the constraint function. Consequently, Applicant believes amended independent claim 1 to be allowable over *O'Brien*.

For the reasons set forth above, Applicant believes amended independent claim 1 to be allowable over *O'Brien*. Claims 3-7 depend directly or indirectly from claim 1, and are also allowable by reason of dependency. Thus, Applicant respectfully requests withdrawal of the rejection of claims 1-7 under 35 U.S.C. 102(b).

In addition, claims 3-7 are allowable for independent reasons. For example, claim 6 includes the limitation of the optimizing operation comprising selecting the range of weighting factors for the constraint function, the weighting factors adjusting an effect that the constraint function has on the objective function.

As discussed above, each *O'Brien* weighted value 68 is applied to the objective function by multiplying a single separately computed weighted value 68 by a variable 70 representing a

particular cell (page 16, lines 3-28 and FIG. 5). Thus, the *O'Brien* objective function includes a sum of factors, each factor representing a cell, and each cell representing the association between a particular travel link and a carrier serving that link.

Consequently, a range of weighting factors for the constraint function is not selected. Rather, a weighted value 68 for each cell (i.e., link and carrier combination) is computed, so that the weighted value 68 adjusts an effect that the particular cell (i.e., link and carrier combination) has on the objective function, notwithstanding any of the *O'Brien* constraints. Thus, Applicant believes the invention of claim 6 is neither taught nor anticipated by *O'Brien*, and claim 6 is allowable.

Section 5.2: rejects claims 1-7 under 35 U.S.C. 102(b) as being clearly anticipated by *Kosiba et al.*, U.S. Publication No. 2002/0184069 (hereinafter *Kosiba*). In **Section 5.2.1**, this Final Office Action alleges that *Kosiba* largely teaches the invention of claims 1-5 and 7. In **Section 5.2.2**, this Final Office Action asserts with regard to claim 6, that since some position in a business may be of more importance to the enterprise than other positions in the business, it would be inherent that the operational constraints of the enterprise in *Kosiba* would use some sort of weighting scheme in order to distinguish the priority of a particular position within the business over another position within the business.

Kosiba was filed on 17 May 2002 and claims priority to U.S. Provisional Application No. 60/291.325, filed 17 May 2001.

As discussed above, the subject matter of claims 1 and 3-7, deserve the benefit of an effective filing date of at least as early as 21 May 1998. An effective filing date of 21 May 1998

predates the *Kosiba* Provisional Application filing date of 17 May 2001. Consequently, *Kosiba* is not prior art to any claim pending in the present application. Therefore, Applicant respectfully requests withdrawal of the rejection of the claims under 35 U.S.C. 102(b) in view of *Kosiba*.

Despite Applicant's contention that *Kosiba* is not prior art, *Kosiba* is discussed herein to address the Examiner's concerns. Presuming an effective filing date of 10 September 2001 for the above-identified invention, *Kosiba*, U.S. Publication No. 2002/0184069, filed on 17 May 2002, is still not legitimate prior art to the present invention. Rather, only teachings disclosed in the *Kosiba* Provisional Application, filed 17 May 2001, could be considered prior art. Consequently, the following analysis is directed specifically to the teachings provided in the *Kosiba* Provisional Application, filed 17 May 2001.

The *Kosiba* Provisional Application, entitled CALL CENTER RESOURCE ANALYSIS SYSTEM, bears little resemblance to the disclosure provided in *Kosiba*, U.S. Publication No. 2002/0184069. Rather, the *Kosiba* Provisional Application includes scarcely more than an advertisement for a CenterBridge™ software tool and a system overview. The *Kosiba* Provisional Application describes CenterBridge™ as a software tool that includes a simulation model of a call center and combines it with optimizer, resource planning, and reporting and analysis features. CenterBridge™ was developed for the purpose of building long-term staff, budget, and performance plans.

The Provisional Application discloses in list form that simulation model development includes data gathering, model building, model validation, and scenario building and reporting

(page 16). As set forth in In re Wilder, 166 USPQ 545, 548 (C.C.P.A. 1970):

> Simply stated, a prior publication or patent description will be considered as anticipatory when its disclosure is at once specific and enabling with regard to the particular subject matter at issue.

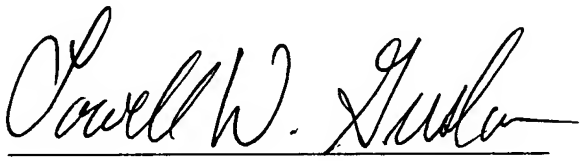
The *Kosiba* Provisional Application makes generalized references to a simulation model, and utilizing the simulation model to manage a call center more effectively. However, *Kosiba* provides no details as to how the simulation model is implemented. Since no details are provided, one skilled in the art upon reading the *Kosiba* Provisional Application would not understand the nature and operation of the *Kosiba* invention. Consequently, the *Kosiba* Provisional Application fails to be enabling, and thus cannot be considered as anticipatory.

Since the *Kosiba* Provisional Application does not anticipate Applicant's invention of claims 1 and 3-7, Applicant believes amended independent claim 1 to be allowable over the *Kosiba* Provisional Application, regardless of a determination of the effective filing date of the present invention.

Accordingly, this Amendment cancels claim 2, amends claims 1, 3, 5, and 6, and retains claims 4 and 7. Currently amended claims 1, 3, 5, and 6 and previously presented claims 4 and 7 remain in the application and are believed to be allowable.

Applicant believes that the foregoing amendments and remarks are fully responsive to the rejections and/or objections recited in the 9 May 2005 Office Action and that the present application is now in a condition for allowance. Accordingly, reconsideration of the present application is respectfully requested.

Respectfully submitted,



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APPENDIX A

This Appendix contains a clean copy of U.S. Patent No. 6,308,162 entitled METHOD FOR CONTROLLED OPTIMIZATION OF ENTERPRISE PLANNING MODELS.